

September 24, 2012



North Texas Tollway Authority
P.O. Box 260729
Plano, Texas 75026

Attn: Gerald Carrigan
Executive Director

NORTH TEXAS TOLLWAY AUTHORITY SYSTEM
2012 Annual Inspection Report

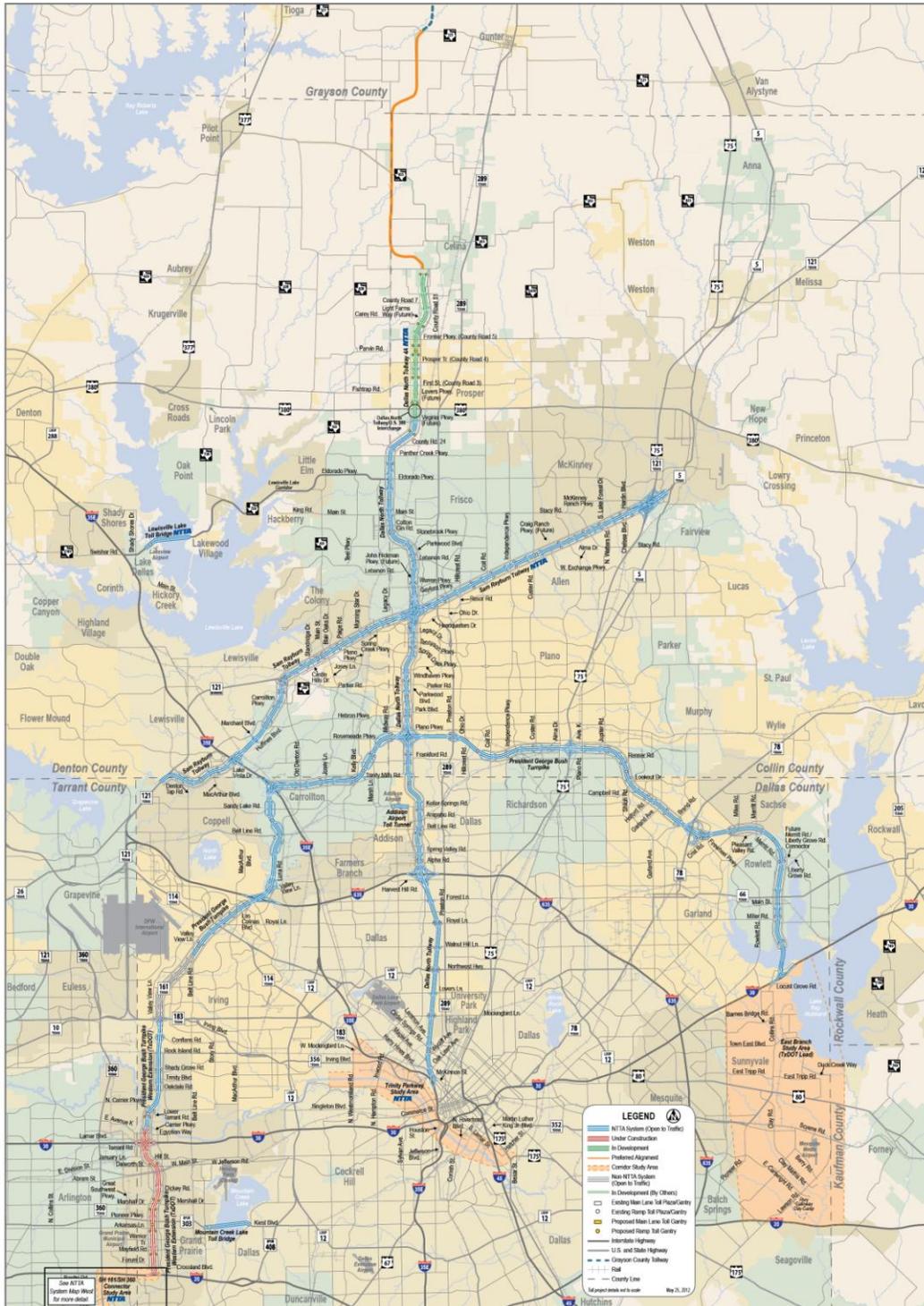
Dear Mr. Carrigan:

The annual inspection of the North Texas Tollway Authority (NTTA) System and its related facilities was conducted March through June 2012. Members of the NTTA's General Engineering Consultant (GEC) team led by HNTB Corporation, partnered with NTTA maintenance staff, performed a general visual inspection of the NTTA's roadways, walls, bridges and facilities. Specialized inspections were performed by the Maintenance Management Consultant (MMC) team led by Jacobs Engineering. These specialized inspections include pavement, bridge, incremental high mast illumination poles (HMIP) and an incremental overhead sign structure (OSS), depending on the year, and have been incorporated into this report.

Per the NTTA System Amended and Restated Trust Agreement, a condition assessment was performed for the purpose of evaluating the general condition of the NTTA System and the need for any special maintenance efforts. The results of the inspections provide a basis to develop the Operations and Maintenance Fund (OMF) and Reserve Maintenance Fund (RMF) budgets necessary to support the needed maintenance activities to maintain the NTTA's System assets. Scheduling of the inspections occurred early in the year so the results of the 2012 inspection could be incorporated into the NTTA's OMF and RMF 2013 budget.

The level of inspection for this report consisted of general visual observations by the GEC. The specialized inspections conducted by the MMC for the pavements, HMIP and OSS complement the visual inspections by providing an additional level of scrutiny to these select assets, as well as conformity to industry recommendations. To ensure assets remain in good condition, findings identified in the visual inspections and those identified in the specialized inspections are incorporated into this report to assist the NTTA in prioritizing its maintenance activities for the coming year. Overall, the NTTA facilities inspected in 2012 are in good condition. The NTTA Maintenance Department is performing the correct routine and major maintenance activities at the right time to efficiently and effectively preserve the NTTA's assets.

DESCRIPTION OF CORRIDORS



NTTA System Map - East



No detailed in-place or destructive testing was performed. The opinions, statements and recommendations made in this report are based solely on conditions revealed by these inspections. No representation or warranty is made that all defects have been discovered or that defects will not later appear. Nothing contained herein shall be deemed to give any third party a claim or right of action against the NTTA, its employees, the GEC or the MMC, nor create a duty on behalf of the NTTA, its employees, the GEC or the MMC to such third party.

DALLAS NORTH TOLLWAY (DNT)

The DNT serves as a vital north-south transportation corridor in the Dallas network of highways linking the central business district and cities in northern Dallas and southern Collin and Denton counties. The first section of the DNT from downtown Dallas to Interstate Highway (I)-635 opened to traffic in June 1968. In 1987, it was extended to Briargrove Lane (north of Trinity Mills Road) and then extended to approximately Legacy Drive in 1994. The extension of the DNT from approximately Legacy Drive to Gaylord Parkway in Frisco and the ground-level interchange with the Sam Rayburn Tollway opened to traffic in 2004. The extension of the DNT from Gaylord Parkway to U.S. 380 (DNT Phase 3 extension) opened to traffic in September 2007. The existing ground level interchange at the Sam Rayburn Tollway was expanded to include 8 direct connector ramps which opened to traffic in November 2011.

The DNT continues to provide a high-quality, well-maintained route to and from downtown Dallas. Increasing traffic volumes compounded by the age of the southern portion of the roadway present the need for continued maintenance to keep the facility at or above the level adopted by the NTTA Board. Generally, the DNT remains in good condition.

PRESIDENT GEORGE BUSH TURNPIKE (PGBT)

The PGBT provides a major limited access facility in the northern half of the Dallas Metroplex. The following is a brief description of the various segments of the PGBT:

- Segment IA: Midway Road to Preston Road, opened to traffic in December 1998;
- Segment IB: Preston Road to Coit Road, opened to traffic in June of 1999;
- Segment IC: Coit Road to Avenue K, opened to traffic in December 1999;
- Segment IIA: Avenue K to Campbell Road, opened to traffic in December 1999;
- Segment IIB: Campbell Road to Brand Road, opened to traffic in April 2000;
- Segment III: Midway Road to the I-35E interchange in Carrollton, opened to traffic in July 2001;
- Segment IV: I-35E interchange to the I-635 interchange, opened to traffic in September 2005;
- Segment V: I-635 interchange to Belt Line Road opened to traffic in December 2001;
- The Eastern Extension: Brand Road to I-30 interchange, opened to traffic in December 2011.

The PGBT Eastern Extension was not included in this year's inspection because the roadway was still under construction and final punch list items were being completed at the time of the inspections. The area of the Metroplex served by the PGBT continues to be a focus of rapid development and growth, including residential development, business expansion and relocation and further commercial development. The PGBT was found to be in good to very good condition.

MOUNTAIN CREEK LAKE BRIDGE (MCLB)

The MCLB and adjoining pavement in southwestern Dallas County opened to traffic in April 1979 and provides a direct and convenient east-west crossing over Mountain Creek Lake. The two-lane facility reaches eastward two and one-half miles from the intersection of Spur 303 and Southeast 14th Street in Grand Prairie to the intersection of Spur 303 and Mountain Creek Parkway in Dallas. The bridge supports economic development in the area and affords convenient access to area businesses and recreational facilities in Grand Prairie and Arlington, linking those communities to the southern portion of Dallas County. The MCLB structure is 7,425 feet long, 34 feet wide and provides a 10-foot clearance above the normal lake surface elevation. Because the MCLB is an older facility, continued inspections and maintenance are needed to keep the facility at or above the level adopted by the NTTA Board. Generally, the MCLB remains in fair to good condition.

ADDISON AIRPORT TOLL TUNNEL (AATT)

The AATT is a two-lane tunnel, which crosses beneath the Addison Airport in an east-west direction. It opened to traffic in February 1999 and provides an alternate east-west route in lieu of Belt Line Road, Arapaho Road or Trinity Mills Road, allowing through movements along Keller Springs Road. The AATT is approximately 3,600 feet long, consisting of a 1,650-foot tunnel with a 950-foot west approach and 1,000-foot east approach. The AATT was found to be in good condition.

SAM RAYBURN TOLLWAY (SRT)

On September 1, 2008, the NTTA began operations and maintenance of the SRT, formerly known as SH 121. The SRT stretches northeasterly approximately 26 miles from SH Business 121 near the Dallas/Denton county line to U.S. 75 in Collin County. The following is a brief description of the openings for the various main lane segments of the SRT:

- Segment 1: Denton Tap Road to Old Denton Road, opened to traffic in August 2006;
- Segment 2: Old Denton Road to Hillcrest Road, opened to traffic in August 2008;
- Segment 3: Hillcrest Road to Hardin Boulevard opened to traffic in September 2009;
- Segment 4: Hardin Boulevard to east of U.S. 75, including the SRT/U.S. 75 interchange, opened to traffic in stages, and was completely open by December 2010;
- Segment 5: SRT/DNT interchange opened to traffic in November 2011.

The main lane pavement was found to be in good to very good condition. The frontage roads in Segment 2 through Segment 5 are also in good to very good condition. Segment 1 frontage roads were not inspected due to an ongoing repair project.

LEWISVILLE LAKE TOLL BRIDGE (LLTB)

The NTTA worked cooperatively with Denton County, the Texas Department of Transportation (TxDOT), the U.S. Army Corps of Engineers (USACE), and the cities of Little Elm, Frisco and Lake Dallas to develop a transportation corridor that includes a new east-west toll bridge across Lewisville Lake. The Lewisville Lake Corridor, which connects I-35E at Swisher Road to the DNT at Eldorado Parkway, is approximately 13.8 miles long and is divided into eight sections. The NTTA constructed three sections of the corridor from Shady Shores Road on the west side of the lake to West Eldorado Parkway on the east side of the lake as well as the 2.04-mile bridge.

Denton County, TxDOT and the communities along the corridor continue to fund improvements to the remaining portions of the corridor. The LLTB opened to traffic in August 2009 and was found to be in very good condition.

ROADWAY ASSESSMENT AND RECOMMENDATIONS

The NTTA maintains approximately 744 lane miles within the NTTA System (not including 80 lane miles on the PGBT Western Extension, which is part of the Special Projects System). The GEC, teamed with staff members of the NTTA Maintenance Department, visually inspected the entire System (excluding the PGBT Eastern Extension, which was still under construction with final punch list items being completed at the time of the inspections). Independent of the annual inspections, visual inspections are performed on a random sample size of the total roadway each month by the NTTA's Maintenance Department as part of their Maintenance Rating Program (MRP).

Each year the NTTA contracts with a specialized pavement inspection firm through the MMC to inspect and assess current conditions of both the main lane and frontage road pavement maintained by the NTTA's maintenance staff. At the time of this report the 2012 Pavement Management Program Report (Pavement Report) was not completed, however the executive summary was available. The executive summary did not indicate any significant changes from what was in the 2011 Pavement Report. Pavement repairs performed by NTTA since the 2011 Pavement Report are listed in the Notable Changes Section. Detailed findings of the 2012 Pavement Report by the MMC are not included in this report.

DNT

The DNT was found to be in good overall condition. The primary focus areas during the visual inspection include roadway and shoulder pavement, center barriers, embankment slopes, drainage flumes, and retaining walls.

In Frisco, the shoulder pavement north and south of the overpass at County Road (CR) 24, Panther Creek Parkway, Cotton Gin Road and the railroad bridge at station 1314+00, is separated from the mow strip in both the northbound (NB) and southbound (SB) directions. The shoulder pavement has also begun to separate from the mow strip north and south of the overpass at Eldorado Parkway in the NB direction and south of the Main Street overpass in the SB direction. It is recommended that the maintenance department monitor the progression and reseal the joints on a regular basis.

Ground mounted signs along the DNT appear to be in good condition. Pavement markings along the main lanes, ramps and gore areas are also in good condition, however, the striping along ramps and where ramps intersect with cross streets are beginning to fade south of I-635. The NTTA Maintenance Department continues to monitor and maintain signs, sign structures, pavement striping and all other directional and traffic elements to provide for safe movement of its customers.

The concrete center barrier between Lemmon Avenue and I-635 exhibits corner breaks, spalling and cracking. The severity of the damage varies from small sections needing patch repairs to sections with corner breaks requiring full replacement. The concrete barrier between I-635 and the PGBT shows signs of spalling, displacement and corner breaks where segments have broken loose and are missing due to vehicle impacts. A maintenance project is recommended to monitor and repair the segments of barrier where the corner has broken loose. A specialized inspection of the center barrier between Lemmon Avenue and the PGBT and responsive action is still recommended in 2012.

The out of alignment pre-cast center barrier located between Cotton Gin Road and Eldorado Parkway in Frisco was repositioned to its original configuration in 2010. However, in 2012 some of the same sections of repositioned barrier have again begun to move laterally. Additionally, the pre-cast center barrier just north of Gaylord Parkway, beginning at station 1165+00, was observed to have moved laterally, encroaching on the inside shoulder. It is recommended these barriers be realigned to their original position and joints modified to allow for sufficient linear expansion of the barriers to prevent future lateral movement.

Along the southern portion of the DNT a limited number of drainage and erosion issues were noted primarily at embankment slopes and drainage flumes adjacent to bridge abutments and retaining walls. Embankment slopes where the ground cover is inadequate, sediment from the erosion clogs both the drainage flume and inlet at the base of the embankment. The NTTA Maintenance Department has reduced the number of drainage and erosion issues with a successful ongoing drainage structure cleaning program that continually monitors and maintains the flumes and inlets.

The retaining walls along the DNT appear to be in good overall condition with the exception of isolated locations of larger than normal panel displacement, excessive backfill migration, and adjacent roadway movement. The retaining walls are composed of mechanically stabilized earth (MSE), cast-in-place (CIP) and drill shaft walls. Isolated MSE panel cracks, spalls, water seepage and differential panel movement were noted throughout. Drill shaft walls exhibited minor cracking. CIP walls north of I-635 exhibited widespread minor cracking, while walls south of I-635 showed significantly less cracking. Generally, CIP walls south of I-635 did exhibit localized incidents of minor spalling and exposed reinforcement. In particular, Mockingbird Lane exhibited a large area of spalling with exposed reinforcing, but this spalling has been successfully patched by the Maintenance Department since the time of inspections. Wall expansion joints and paint deterioration were also noted at various locations along the DNT between PGBT and I-635. MSE retaining walls associated with the intersections at CR 24, Panther Creek, Eldorado Parkway, Main Street, Stonebrook Parkway, John Hickman Parkway, Alpha Road and the I-635 northwest and southwest ramps exhibited larger than normal panel displacement. MSE retaining walls associated with the intersections of CR 24, CR 26, and I-635 southeast, southwest, and northwest ramps continue to exhibit excessive backfill migration. The above-mentioned wall systems and roadways warrant monitoring and further investigation to gauge movement and backfill migration. The NTTA is currently in the process of procuring engineering services to conduct specialized retaining wall investigations and provide repair recommendations along the DNT, PGBT, and SRT.

The pavement settlement at the I-635 southwest ramp noted in last year's report has been filled with asphalt along the joint; however, this area appears to still be exhibiting significant signs of settlement. In addition, there is ongoing pavement separation, settlement, and rotation occurring adjacent to the location noted last year in the center lane. Furthermore, the retaining wall under this pavement is showing signs of panel movement and cracking, backfill migration and localized wall bulging at the west face. This retaining wall, fill section, and roadway pavement are currently being investigated and monitored by NTTA.

The mow strip adjacent to the MSE wall along the NB frontage road, south of Cotton Gin Road, has begun to rotate. The curb at the Cotton Gin location was broken significantly along this same area two years ago and has since been replaced by the City of Frisco. This location warrants monitoring and further investigation.

The cast in place walls associated with the intersections at Park Lane, University Boulevard, and Mockingbird Lane exhibited excessive water flow from the underdrain pipes during previous inspections, while this year the water flow varied from moderate to minimal volumes at the same locations. Additionally, the slope and flume area behind the barrier rail on southeast side of the Mockingbird Bridge exhibited high water flow into the roadway shoulder. Each of the underdrain locations warrants monitoring to gauge the water flow relative to periods of drought, and the flume and slope at Mockingbird should be investigated to determine the source of water draining through the barrier rail and into the NB shoulder.

The retaining wall top coping at fence post locations near Arapaho and Beltline continue to exhibit significant cracking and spalling. While most of the spalling is on the frontage road side of the wall, a risk exists that the cracking and spalling will progress and pose a safety hazard for main lane DNT.

The NTTA's on-going OSS inspection program requires each cantilever overhead sign support (COSS) to be inspected every five years and each overhead sign bridge (OSB) to be inspected every ten years. Fifteen COSS were included on the 2012 re-inspection schedule and were located between the I-35E interchange and Tennyson Parkway. Fourteen of the 15 re-inspected COSS were found to be in very good to excellent overall operational and structural condition while one was found to be in good condition and was recommended for a ground level evaluation in two years.

Forty-two COSS structures were scheduled for their initial inspection and were located on the Phase 3 extension. Forty of the 42 initially inspected and inventoried COSS were found to be in very good condition while the remaining two were found to be in good condition. No OSB's were included on the 2012 inspections schedule. A continued monitoring program of all structures is recommended in accordance with the OSS inspection program.

PGBT

The PGBT was identified as being in good to very good overall condition. The primary focus areas during the visual inspection include shoulder and roadway pavement, pavement markings, drainage ditches, landscaping, embankment slopes and retaining walls. It should be noted that

while the DNT is maintained by the NTTA's in-house staff, the PGBT is maintained by Roy Jorgensen Associates, Inc. (Jorgensen) under a separate Total Routine Maintenance (TRM) contract with the NTTA. Since the fall of 2011, Jorgensen has provided and continues to provide roadway maintenance services under the TRM contract for the PGBT. NTTA staff actively manages the work of Jorgensen and holds their activities to the same high standards as the rest of the NTTA's asset standards.

Ground mounted signs along the PGBT appear to be in good condition, but the pavement markings along the main lanes, ramps and gore areas are beginning to show signs of age in Segments III and IV. The NTTA and Jorgensen continue to monitor and address signs, striping and all other directional and traffic elements to ensure safe movement of customers.

In general, the concrete barriers along the PGBT are in good condition and show minimal signs of movement. However, the concrete barrier along the right side of the roadway at Main Lane Plazas (MLP) 8 and 9 has begun to move laterally and should be repositioned to their original positions. Additionally, the riprap that covers the center barrier transition at MLP 8 has begun to settle.

Roadside drainage ditches as well as embankment slopes beneath and adjacent to the interchange bridges exhibited erosion and drainage issues where typical turf slope protection has failed or there is inadequate ground cover. Some areas of PGBT have continued to show improvement over the past years because the landscape and ground cover has grown to be sufficient for proper protection. An ongoing procedure to line these areas with rock riprap has aided in preventing erosion and allowing the landscape to grow more fully. The ditch that runs along the eastbound (EB) main lanes between Preston Road and the DNT has areas of ponding water and it is recommended that the ditch be re-graded for better flow. The areas of the PGBT between the DNT and I-35E, in particular between Kelly Boulevard and I-35E, that exhibited signs of erosion in the center median in 2011, continue to show increasing signs of erosion. Two other areas that have shown signs of increased erosion in the center median since the 2011 inspections are at Coit Road and east of Shiloh Road. The erosion is so deep along these ditches that the ditch flow line is now below the area inlets, the mow strips are being undermined and the ditches are ponding water and not draining properly. The NTTA has a PGBT erosion mitigation project currently under design.

The retaining walls along the PGBT appear to be in good overall condition with the exception of isolated locations of larger than normal panel displacement, excessive backfill migration, adjacent roadway movement, and water leaks. The retaining walls are composed of mechanically stabilized earth (MSE), cast-in-place (CIP) and drill shaft walls. Observations this year were very similar to last year's inspections, as no significant visual progression was noted. Isolated MSE panel cracks, spalls and differential panel movement were noted primarily on older segments of the PGBT. Drill shaft walls exhibited widespread minor cracking but very little movement. Minor erosion issues were found throughout the PGBT on roadway slopes and under bridges near abutments, as well as localized instances of drainage problems and backfill migration. MSE retaining walls associated with the intersections at Dickerson Parkway, Plano Road, the WB main lane exit at Scott Mill Road, the pump station inlet near station 1162+50, the NB main lane exit ramp to I-635 EB, and the EB main lane entrance ramp from DNT exhibited larger than normal panel displacement, backfill migration or adjacent roadway movement and cracking. Of particular note

is the separation of the WB approach pavement over the north Dickerson Wall. The retaining wall and pavement at this location is currently being monitored by NTTA and is part of an ongoing retaining wall program. Also of note is the I-35E SB ramp to PGBT that exhibits similar roadway pavement separation, and is currently being repaired. It is recommended that permanent measuring devices be placed on the locations listed above to better monitor the panel displacement and roadway movement. Evidence of localized water leaks were noted at the base of walls at Custer Road, Coit Road, Kelly Boulevard, the railroad bridge west of Kelly Boulevard and Josey Lane, as well as in the slope of the EB main lanes east of Scott Mill Road. Apparent hydrostatic induced sand backfill migration was noted in 2011 at the joint between the abutment cap and slope paving at the Coit Road intersection and should continue to be monitored though no further evidence was observed this year. Construction of a mitigation project to address the water leak at Coit Road is expected to begin next month. The full height spall on the drill shaft wall to the west of Old Denton Road displayed little to no progression from last year's inspection. Each of the above mentioned wall systems warrants careful monitoring, and in the case of the spall, concrete repair. The NTTA is currently in the process of procuring engineering services to conduct specialized retaining wall investigations and provide repair recommendations along the DNT, PGBT, and SRT.

The NTTA's on-going OSS inspection program requires each COSS to be inspected every five years and each OSB to be inspected every ten years. Fifteen COSS were included on the 2012 inspection schedule and were last inspected in 2007. All of the 15 inspected COSS were located between Independence Parkway and Plano Road and were found to be in very good to excellent overall operational and structural condition. A continued monitoring program of all structures is recommended in accordance with the OSS inspection program. No OSB's were included on the 2012 inspections schedule.

MCLB

Generally, the east approach of the MCLB remains in good condition, whereas the west approach has experienced more deterioration and is near the point at which pavement rehabilitation will be required. As reported the past few years, the east approach pavement is experiencing slab cracking, joint spalling and diagonal cracking. The west approach is also experiencing similar deterioration as well as some isolated patches, corner breaks and pavement heaving, though the percentage of slab cracking in the west approach is significantly higher than in the east approach. Improvements to the west approach pavement that had been planned to coincide with the all-ETC conversion were deferred to a later date due to the low traffic volumes. The maintenance department will continue routine maintenance on the approaches.

AATT

The AATT was identified to be in good condition. The items noted were primarily associated with paint deterioration, drainage, backfill migration, minor tunnel wall cracking, isolated mid-slab pavement cracking and minor joint deterioration across the JRCP. Minor drainage issues are primarily associated with ground water seepage from the retaining walls and from under the pavement inside the tunnel near the east pump station. Minor wall cracks were observed in the interior walls of the tunnel and at both portals. Minor mid-slab cracking and minor joint deterioration was noted in the EB lane of the west approach. Continued routine maintenance and

monitoring by NTTA maintenance crews is recommended to maintain this facility at its current condition.

The NTTA's on-going OSS inspection program requires each COSS to be inspected every five years and each OSB to be inspected every ten years. The two OSS located at the AATT were not required to be inspected this year as both were last inspected in 2010. A continued monitoring program of all structures is recommended in accordance with the OSS inspection program schedule.

SRT

The SRT was identified as being in good to very good condition. The primary focus areas identified during the visual inspection include roadway paving, pavement markings, drainage ditches, culverts, and retaining walls.

Roadside drainage ditches as well as the upstream and downstream areas of culverts exhibited erosion where there is inadequate ground cover. No evidence of overtopping of the frontage roads was noted during this year's inspections. Several cross drainage culverts between Farm to Market (FM) 544 and Plano Parkway appeared to be silting-in, both up and downstream, causing the culvert to flow less effectively and resulting in poor drainage conditions in the area. It is recommended that a project be implemented to address these drainage issues. Additionally, it was noted that sections of landscape along the outside side slopes of the raised fill sections at some bridge approaches are showing signs of erosion. Currently the NTTA is addressing the most significant location of erosion at the Hebron Parkway interchange while others continue to be monitored.

The northbound frontage road pavement, north of Standridge Drive, is showing signs of localized cracking and heaving across all three lanes of pavement. There are three separate heaves in this area, a single smaller one north and south of the primary larger heave in the middle. The two smaller heaves do not require immediate attention. However, the primary heave has caused a significant variation in the roadway profile which affects the ride quality while traveling at the current design speed. The condition of the primary heave has worsened since it was last inspected in 2011. The main lane pavement adjacent to the three heaving frontage road locations appears to be in good condition. The NTTA has a project planned to begin in the spring of 2013 to address these locations.

Similar to the center barrier on DNT Phase 3, the center barrier on SRT in Segments 3 and 4 have also begun to move laterally resulting from a combination of thermal expansion and vehicular impact. It is recommended that these barriers be realigned to their original position and their alignment monitored until future widening of SRT is complete and the barrier joints are fully grouted.

The retaining walls along the SRT are a combination of aging walls that have been in service for over 20 years and newly constructed walls associated with recently opened sections of the SRT. The walls appear to be in good overall condition with the exception of isolated locations of larger than normal panel displacement, excessive backfill migration, and moderate cracking. The retaining walls are composed of mechanically stabilized earth (MSE), cast-in-place (CIP) and drill

shaft walls. Isolated incidents of minor spalling, backfill migration and differential panel movement on MSE retaining walls along the SRT were noted during the inspection with the bulk of the issues associated with the older southern section of the corridor. Minor erosion and the need for additional maintenance of wall flumes and inlets were also noted. Retaining walls associated with the intersections at Marchant Boulevard, Plano Parkway, MacArthur Boulevard, Hebron Parkway, Denton Tap Road, Preston Road and the Business SH 121 direct connector at both the southern and northern junctures exhibit moderate cracking, backfill migration or larger than normal panel displacement, but have shown little to no progression. It is recommended that each of the above-mentioned wall systems receive careful monitoring and routine maintenance as necessary. The NTTA is currently in the process of procuring engineering services to conduct specialized retaining wall investigations and provide repair recommendations along the DNT, PGBT, and SRT.

The NTTA's on-going OSS inspection program requires each COSS to be inspected every five years and each OSB to be inspected every ten years. No OSS along the SRT were included on the 2012 OSS inspection schedule as they have been inspected in recent years as required by the inspection program. A continued monitoring program of all structures is recommended in accordance with the OSS inspection program schedule.

LLTB

Both bridge approaches are in very good condition. Although the LLTB is a new facility, occasional spalling was observed along the bottom of the center cast-in-place concrete barrier. This spalling does not present a performance concern at this time. The retaining walls along both the east and west approaches were found to be in good condition with no issues noted.

The NTTA's on-going OSS inspection program requires each COSS to be inspected every five years and each OSB to be inspected every ten years. As a relatively new facility that is less than five years old, no OSS along the LLTB were included on the 2012 OSS inspection schedule. A continued monitoring program of all structures is recommended in accordance with the OSS inspection program schedule.

HIGH MAST ILLUMINATION POLES (HMIP)

In 2012, the NTTA contracted with a specialized inspection firm to monitor, inspect and assess 31 HMIP structures; ten that were repaired in 2011, and 21 flagged for monitoring during previous projects. The HMIP structures are located along the PGBT Segments IIB, III, IV and V, SRT Segment 2 and at the interchange between the DNT and I-635. The ten structures repaired in 2011 were found to be performing satisfactorily with no new notable observations. Seven structures along the PGBT Segment V exhibited progressing cracked concrete foundations with evidence of crack propagation or increased crack widths. Three of these seven were removed from service and the poles taken down. Five structures show signs of new fatigue fractures at the pole-to-base plate weld, one of which also exhibited a cracked concrete foundation. These are located on PGBT Segment V and SRT Segment III. A continued monitoring and specialized inspection program is recommended to ensure structural performance of the HMIP inventory.

BRIDGE ASSESSMENT AND RECOMMENDATIONS

As part of the annual inspection program, all bridges along the NTTA System were visually inspected by the GEC and NTTA maintenance staff. The bridge assessment included a review of available reports filed with the TxDOT Bridge Inventory Inspection and Appraisal Program (BRINSAP) section.

DNT

Based on the visual inspections this year, the bridges on the DNT remain in generally good condition. Inspection access was limited from Legacy to Gaylord due to the extensive SRT/DNT Interchange construction.

Moderate bridge deck scaling, cracking and spalling were noted on several bridges south of I-635. The SB I-35E ramp connector, Forest Lane, Park Lane, Lemmon Avenue and Inwood Road decks have extensive spalling, scaling and cracking. Because of their condition, these bridges are recommended for repair. The NTTA has already begun implementing repair plans for the SB I-35E ramp connector and Lemmon Avenue bridges.

As noted last year, there are numerous bridges in Frisco between Main Street and U.S. 380 with spalled beam ends. In addition, the bearing pads of these beams displayed high shear deflections. The progression of the spalling, noted last year has continued this year. Furthermore, active water seepage through the Main Street bridge abutment has been noted the last two years at a beam spall location. It is recommended for the beams and abutments in this area to be monitored for this active progression.

The extensive erosion at the southwest corner of the Panther Creek Parkway bridge which was undermining several bridge and slope protection elements has been repaired on the exposed slope. However, the fill below the rail and approach slab appears to contain voids. The compromised traffic rail continues to lean, providing a blunt end with risk of vehicle impact and should be repaired to tie into an adjacent structure and match the existing rail alignment.

A common observation south of I-635 on bridge overpass rails are minor cracks and minor spalls at fence post locations. However, the Meaders Road bridge has a moderate rail crack/spall which could break loose and fall into the DNT main lanes below. Rail repairs at these locations are recommended.

PGBT

During this visual inspection, the bridges along the PGBT were observed to be in generally good to very good condition.

Substructure observations include minor to moderate cracking/spalling of abutment caps, wingwalls and backwalls. The following isolated bridge locations along PGBT displayed the most extensive abutment spalling: Cooks Branch, Gateway, White Rock Creek, US 75 Interchange, N. Shiloh Road and Jupiter Road. Diagonal cracking at the top of multi-column bents was observed at isolated bridge locations. The abutment spalling and diagonal bent cap cracking noted have not progressed since last year's inspection.

Erosion was noted during the visual inspection at landscaping areas, abutments/approach slabs, channels and embankments in numerous locations. There are numerous locations where approach slabs, riprap and channels are being undermined or excessively eroded, and are in need of erosion mitigation. The I-35E and I-635 Interchanges, Royal Lane and Coit Road bridges were noted as having excessive erosion at the bridges, and are recommended for erosion mitigation.

Superstructure observations include isolated cracking and spalling at the end of pre-stressed concrete beams. Bridges displaying numerous spalls at beam ends include: Gateway, Cooks Branch, Hutton Branch, I-35E Interchange, DWU Access Rd and US 75 Interchange. In addition, there are several bridge locations where bearing pads are displaying high shear deflections due to abutment or beam movement. All superstructure observations noted here do not exhibit notable changes since last year's inspection.

Numerous sealed expansion joints along the PGBT are either missing or deteriorated. There are several expansion joints within the Hutton Branch bridge which have the following excessive deterioration: broken, loose and rusty. Furthermore, daylight could be seen from one of these joints. These joints should be monitored for safety and further damage to the structure. In addition, there were numerous locations with severely deteriorated relief joint seals, which are in need of repair.

A culvert north of Beltline Road, next to ramp plazas, was noted for several issues including: erosion, debris, and sediment. There is extensive erosion along the east headwall and north riprap interface. In addition, at the west headwall numerous trees are in the channel bed along with heavy sediment. It is recommended that this culvert be cleaned up and the erosion repaired.

MCLB

Based upon the visual inspections this year, the MCLB is generally in fair condition. Observations noted during the visual inspection included widespread spalling of beam ends with exposed reinforcing and pre-stressing strands. Compared with past inspection data the beam spalling is actively progressing. A maintenance project is recommended to monitor and repair the beam spalls. Noted deck observations include isolated scaling, spalling and cracking of the deck surface. All other observations are minor in nature and include: abutment cracking, bent cracking and spalling, and slight deterioration of the column collars at the water line. All of the deterioration found on the column collars is minor in nature and is non-structural.

SRT

During this visual inspection, the bridges along the SRT were observed to be in generally good to very good condition.

Noted substructure observations include minor to moderate cracking/spalling on abutment caps, wingwalls and backwalls. In addition, diagonal cracking at the top of multi-column bents was observed at isolated bridge locations.

Isolated pre-stressed concrete beams are displaying cracks and spalling due to abutment backwall and/or beam movement at isolated locations. The following bridges are displaying progressive

beam end spalling since last year's inspections: Main Street, Standridge Drive, Huffines Boulevard and Hebron Parkway.

This year several locations were noted as having moderate erosion at abutment riprap slopes. The following are bridges noted as having moderate erosion at abutment riprap slopes: Legacy Drive, Standridge Drive, FM 544, Huffines Boulevard and three locations within the I-35E Interchange. Repair and protection measures are recommended for these locations to prevent undermining of riprap and other elements.

Isolated headwall separation noted last year at culverts between Hebron Parkway and Carrollton Parkway has not progressed. These culverts should be monitored for any additional movement.

Several bridges at the north end of SRT were noted as having misaligned precast concrete traffic barriers. In addition, some of these precast barriers did not have any mechanical reinforcing connection between two adjacent panels. Bridges with misaligned precast barriers include: Alma Road, Cottonwood Creek, Lake Forest Drive and Hardin Boulevard. It is recommended that these barriers be realigned and mechanical connection established to reduce risk of potential vehicle damage in the event of impact.

LLTB

Based on the visual inspections this year, the LLTB was found to be in excellent condition. Issues identified were minor. The substructure observations include diagonal cracking at bent caps. The deck and approach slabs displayed minor cracking. Traffic rails were noted as having minor cracking and isolated locations of minor toe spalling. In addition, some moderate erosion was noted at the abutment riprap. The erosion should be monitored to prevent undermining of abutment riprap.

FACILITIES ASSESSMENT AND RECOMMENDATIONS

During the 2012 annual inspections, the NTTA's facilities consisted of 140 units, which included main lane plazas, ramp plazas, a central maintenance facility and the Gleneagles administration office complex. The total area of the NTTA facilities was approximately 583,000 square feet of enclosed space. The inventory of facilities is being adjusted annually as all ETC conversion projects add new gantries and eliminate demolished manned facilities, and as new facilities are brought into service such as the under construction Frisco Operations Center. Facilities under construction are not included in the annual inspections.

Those facilities that are an ancillary part of the roadway, such as main lane and ramp plazas, are inspected and included in the GASB 34 ratings as part of the NTTA's infrastructure assets. The central maintenance facility and Gleneagles office complex are inspected and reported on annually, but are not considered to be part of the infrastructure assets, and are not included in the GASB 34 ratings prepared by the MMC and included in this report. The annual facilities inspections, which consisted of general visual observations, revealed areas that may require attention. The condition of the building assets ranges from fair to very good.

A general visual inspection was performed on the facilities by an experienced licensed professional from the GEC, an architect familiar with the design and construction of the facilities, and a member of the NTTA Maintenance Department staff. They identified a number of areas recommended for monitoring or improvement.

Due to the impending removal and replacement of booth and ramp plazas canopies, a thorough inspection of them was not warranted. A cursory inspection of these booths and ramp plazas on the PGBT and DNT was performed to ensure no immediate risks were apparent. The remaining facilities were inspected to the standards required by the trust agreement.

DNT

Main Lane Plaza 1 (MLP 1) has been replaced with an all-ETC gantry. As expected for a new facility, the gantry system was in very good condition in 2012.

Main Lane Plaza 2 (MLP 2) at Keller Springs Road has a two-story operations building. The original canopy and booths had been demolished and replaced with new Main Lane Gentries, Information Technology (IT) buildings and Fiber Huts. The new facilities are in very good condition. The original operations building interior is in poor condition with ongoing leaks, insect infestation and areas of mold or mildew growth. The building, though compliant when constructed, no longer meets current codes or accessibility requirements and has numerous areas of significant cosmetic deterioration. Since the facility is no longer a component of revenue collection it is recommended for demolition.

Main Lane Plaza 3 (MLP 3) at Parker Road has a two-story building with a basement and tunnel. The canopy and booths have been removed for the all-ETC conversion. The new IT buildings are in good to very good condition. The original two-story operations building and basement have been renovated for office, storage and IT work space. That work is substantially complete but areas of incomplete painting and other minor maintenance issues were observed. MLP 3 is in overall fair condition.

Main Lane Plaza 4 (MLP 4) near Main Street in Frisco is a two story building with a catwalk and half-tunnels. MLP4 is in overall very good condition. The associated ramp plazas have been replaced for all-ETC construction and are in good condition. Some IT changeover work has resulted in unused electrical and data cabinets remaining without doors or complete enclosures.

PGBT

All of the PGBT main lane and ramp plazas are essentially the same, being built using the same prototype. All main lane plazas include a two-story building with a basement and tunnel with the exception of MLP 9 at Sandy Lake Road, which has an overhead walkway and no tunnel. The ramp plazas are similar in architectural style and have two-lane or three-lane configurations. All-ETC conversions have been accomplished, but unused booths and canopies remain in all locations. The final phase of the all-ETC conversion project is just beginning and will remove all 30 PGBT ramp plaza booths and islands. Repairs to tunnel walls that were damaged from adjacent construction activities by Dallas Area Rapid Transit (DART) at MLP10 are underway. All of the main lane facilities are in overall good condition. The most common issues identified during the

inspection include cracking and water damage at tunnels and aging finishes at the older plazas. It is recommended that repairs and replacement be performed during the course of normal routine maintenance or be included into any proposed building renovations for repurposing. The use of the main lane facilities as storage locations for toll collection and IT equipment create tripping hazards and obscure code required egress corridors in many locations. It is recommended that a storage plan be developed that confines the use of facilities as equipment storage to rooms not otherwise being used and not in path of egress areas.

MCLB

The MCLB plaza is a single-story building with two separate storage facilities. This facility is in overall fair condition. The operations building condition is appropriate to its age and the norm for wood frame construction, but multiple code and accessibility upgrades would be required if the building were to be renovated. The older of the two sand storage and maintenance buildings is experiencing significant exterior wall damage. It is recommended that repairs and replacement be performed during the course of normal routine maintenance or be included into any proposed building renovations for repurposing.

AATT

The AATT facility has been converted to all-ETC at the time of inspection, however the original canopy and booth building remain. The components which will remain after conversion have cosmetic defects, none of which should have a detrimental effect on toll collection.

SRT

All SRT facilities are of the standard all-ETC gantry system. As expected for a new facility, the gantries are in very good condition. Concrete equipment screen and support walls at toll gantries are experiencing differential movement and should be monitored and corrected if movement exceeds operational tolerances for the equipment.

LLTB

The gantry and IT building at the LLTB is in very good condition as expected for new facilities. Since the facilities are unmanned, a regular cleaning schedule should be set to remove insect infestation on the walls and to monitor windblown debris build-up.

MAINTENANCE SERVICE CENTER

The Maintenance Service Center located in Plano, Texas was completed in November 2003 and serves as the hub for maintenance operations. The Maintenance Service Center is in overall good condition. A fire hydrant line which was excavated and being monitored for leaks at the time of last year's inspection was still under monitoring. Noted findings recommended for repair include soil subsidence at the edge of the building and poison ivy infestation in the public parking area.

GLENEAGLES OFFICE COMPLEX

The Gleneagles office complex, acquired by the NTTA in mid-2005, is the central location and corporate headquarters for the NTTA's administration staff. Additional office space within this NTTA-owned complex is leased to tenants. Overall, this facility was found to be in very good condition. The majority of the issues identified at this facility are minor deterioration to finishes.

FIBER HUTS

The Fiber Huts are located at the intersections of major roadways on the NTTA System. The Fiber Huts are in overall good condition but should be routinely maintained for insect infestation and for alarm monitoring.

NOTABLE CHANGES SINCE LAST REPORT

The SRT/DNT interchange opened to traffic in November 2011, but was not included in the 2012 annual inspection as punch-list items were still being completed by the contractor.

SRT/ I-35E main lane deck and rail repair.

SRT Segment 1 frontage road pavement has been repaired and restriped.

A new traffic rail on SRT NB Frontage Road at I-35E Interchange has been installed to replace the old vehicle-damaged rail.

A project to install erosion control at various locations on the SRT, including under the Business 121 connector ramp and around the West Rowlett Creek, was completed in August 2011.

Ride quality improvements at various locations through localized pavement profiling restoration along the DNT and SRT.

The SB DNT approach roadway settlement at the north end of the Panther Creek Parkway bridge has been repaired and was completed in July 2012.

The NB I-35E to NB DNT ramp connector bridge deck has been resurfaced through a special project.

The bent caps for the SB DNT to I-35E ramp connector were patched in November 2011. In mid-2012 one bent was structurally repaired by placing steel collars on each end of the bent cap and tying them together with horizontal tie rods.

Removal of all toll booths on DNT, except in Plano, as well as the installation of new ETC gantries at the toll collection locations was completed in December 2011.

Approximately 100 feet of DNT center barrier south of Beltline Road previously damaged by a tractor trailer has been repaired and the associated missing light pole replaced.

The PGBT Eastern Extension, from Brand Road to the I-30 interchange, opened to traffic in December 2011

An embankment and retaining wall repair project, at the intersection of PGBT and SH 114, to address the noted movement of the retaining walls observed by previous annual NTTA inspections was completed in November 2011.

A retaining wall project on PGBT to repair the MSE wall immediately west of Kelly Boulevard was completed in May 2012.

The PGBT Segment V asphalt shoulder pavement resurfacing project was completed in October, 2011.

A project to install French Drains was completed adjacent to ongoing water seepage at the base of the north side retaining wall at Alma Road on PGBT. The French Drain has successfully routed the leaking water safely away from the roadway to existing storm sewer lines.

Shoulder separation noted last year on PGBT at the Royal Lane NB off ramp has been sealed.

The extensive riprap erosion, noted last year, on SB PGBT main lanes at Royal Lane has been repaired.

PGBT Segments I, II and V have been restriped.

COMPLIANCE WITH GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB) 34

The MMC has developed a comprehensive inventory of the NTTA's infrastructure assets including roadways, bridges, and facilities that are an ancillary part of the network. Condition ratings and a replacement cost were assigned to each asset according to industry standard procedures. This inventory, along with the annual inspection, provides the foundation for complying with Government Accounting Standards Board (GASB) Statement 34 using the "Modified Approach". All governments and governmental organizations are required to comply with GASB 34, which includes asset condition assessments every three years. In accordance with GASB Statement 34, the MMC performs an asset condition assessment every three years, the last of which was developed in 2010. The next GASB evaluation will occur in 2013.

Table 1 – Asset Condition Rating

NTTA Asset	Condition Rating
Roadways	8.9
Bridges	9.1
Overall NTTA assets (Weighted Average)	8.9

BUDGET RECOMMENDATIONS

The annual inspection identifies items needing attention and provides input for the annual budget process for maintenance. It is recommended that appropriate budgets for necessary maintenance and repairs be allocated to maintain the overall asset conditions to NTTA standards per direction from the NTTA Board of Directors. The anticipated budget should be divided across asset classes based on the year-to-date experience for FY 2012. It is recommended the following values be incorporated into the NTTA’s 2013 Maintenance Department OMF and RMF Budgets:

Table 2 – Budget Recommendations

FUND	Amount
OMF	\$26.1M
RMF	\$21.2M
2013 Total	\$47.3M

SUMMARY

The DNT currently provides high quality access to and from the downtown Dallas business district. The PGBT continues to improve access around and through the suburban areas of Dallas. Other system facilities such as the AATT, LLTB and MCLB also contribute to improved mobility in the area served by the NTTA. On September 1, 2008, the NTTA began maintaining the SRT corridor in Collin, Dallas and Denton counties. As of November 2011, all segments of the SRT are open to traffic.

Overall, the facilities inspected for this report are in good condition, with past and present maintenance efforts proving effective in preserving the system. The growth of the Dallas - Fort Worth (DFW) metropolitan area has increased traffic volumes significantly above projections. This expansion, based on demand, combined with the advancing age of portions of the NTTA System, will continue to increase expectations on the NTTA and its staff to maintain each facility. Routine, systematic maintenance and quick attention to developing problems should allow the NTTA System to continue to effectively serve the DFW metropolitan area.

Very truly yours,

HNTB CORPORATION



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